






## The 6 types · side-by-side

Distributor-facing reading. Each row gives best-for, key trade-off, capacity, price band, and how many of SPC's tier slots carry an option at that product type.

PRODUCT TYPE	BEST FOR	KEY TRADE-OFF	TYPICAL CAPACITY	PRICE BAND	BRANDS SPC CARRIES
<b>Coalescing</b> OIL AEROSOL + WATER MIST · 0.1 OR 0.01 MICRON	<b>The workhorse of every filter train.</b> Every plant downstream of an oil-lubricated compressor. 0.1 micron for general plant air; 0.01 micron for paint, instrumentation, food packaging, breathing-air pre-filter, and anything spec'd to ISO 8573-1 Class 1 oil.	<b>LIQUID ONLY · NEEDS THE STACK</b> Captures liquid oil and water aerosol; passes gaseous vapor straight through (that's carbon's job). Also blinds fast on dry solids without a particulate pre-filter upstream — element life drops from 12 months to 3 months without that protection.	Point-of-use to <b>3,000+ SCFM</b> inline · floor-standing	<b>\$ - \$\$</b>	 4 / 5 · SOLID
<b>Particulate</b> DRY SOLIDS · 5 / 1 / 0.5 / 0.1 MICRON	<b>The cheap filter that protects the expensive ones.</b> Pre-filter (5 micron) upstream of every coalescing housing — catches pipe scale and rust. After-filter (1 micron) downstream of every regenerative desiccant dryer — catches desiccant fines before they reach valves.	<b>DRY ONLY · NO OIL, NO WATER</b> Mechanical solid capture only. Does nothing for oil aerosol, water mist, or vapor. Loads slowly so element life is the longest of any filter in the train (12 months typical), but customers who skip it pay for it in shortened coalescing-element life.	Point-of-use to <b>3,000+ SCFM</b> inline · floor-standing	<b>\$</b>	 5 / 5 · DEEP
<b>Activated Carbon</b> GASEOUS OIL VAPOR · ~0.003 PPM CARRYOVER	<b>Class 0 oil and audit-driven installs.</b> Food contact, pharma, breathing air, electronics, high-end paint. Anywhere the spec calls for ISO 8573-1 Class 0 total oil (liquid + vapor) — coalescing alone reaches Class 1, only carbon gets to Class 0.	<b>INVISIBLE FAILURE · 6-MONTH CADENCE</b> No pressure-drop indicator — when the adsorption sites fill, the carbon simply starts passing vapor with no warning. Calendar replacement at 6 months (twice the cadence of coalescing) OR continuous downstream vapor monitoring. Liquid oil saturates the bed in days; mandatory coalescing upstream.	Sized to system SCFM <b>+ 50% headroom</b> contact time matters	<b>\$\$</b>	 1 / 5 · WALKER FILTRATION ONLY

<p><b>Medical / Sterile</b> NFPA 99 MEDICAL-AIR · STEAM-STERILIZABLE</p>	<p><b>Hospitals, surgery centers, dental, dialysis.</b> The final stage of any NFPA 99 medical-air train. Hospitals, surgery centers, dental offices, dialysis clinics, tier-1 veterinary. Code-driven product — not used outside medical-gas installs.</p>	<p><b>CODE-SPEC, NARROW APPLICATION</b> Validated for in-place steam sterilization at ~248°F / 120°C for a finite cycle count (typically 100+). Quoting it for non-medical work makes the customer pay for compliance they don't need; quoting it without CO/CO2 monitoring and the full upstream train fails NFPA 99 inspection.</p>	<p>Sized to medical-air system SCFM vertical-mount · in-place sterilizable</p>	<p>\$\$ - \$\$\$</p>	<p>■■■■■ 1 / 5 · WALKER FILTRATION ONLY</p>
<p><b>Intake Silencer / Filter-Silencer</b> COMPRESSOR INLET · FILTRATION + 10-15 DB ATTENUATION</p>	<p><b>Indoor compressor rooms near occupied space.</b> Every indoor commercial compressor install with offices, exam rooms, classrooms, or sleeping quarters above or adjacent. The single most cost-effective control measure for compressor-room noise — often the difference between needing a hearing-conservation program and not.</p>	<p><b>INDOOR-OCCUPIED ONLY</b> Outdoor or detached-building installs don't need the silencer half — a plain intake filter does the filtration job at lower cost. Reciprocating compressors transmit vibration that cracks rigid housings; spec a flexible vibration-isolating inlet hose with every install.</p>	<p>Matched to compressor free air delivery threaded · flange · panel-mount</p>	<p>\$</p>	<p>■■■■■ 1 / 5 · SOLBERG ONLY</p>
<p><b>Air/Oil Separator</b> INSIDE THE ROTARY-SCREW · 2,000-HOUR SERVICE</p>	<p><b>The anchor of every annual service kit.</b> Internal coalescing element in every lubricated rotary-screw compressor — strips injected lubricating oil from discharge air before it leaves the package. Highest-cost and most frequently replaced consumable; anchor line of the rotary-screw service-kit aftermarket cross.</p>	<p><b>FAILURE CASCADES TO THE AIR-END</b> Overdue separator → high differential pressure → drain leg floods → sump runs low → air-end runs oil-starved → catastrophic air-end failure. The most expensive consumable failure mode on a rotary screw. Cross-reference by OEM make/model/HP, not by capacity rating.</p>	<p>Matched to OEM compressor make/model pleated · spin-on · deep-filter</p>	<p>\$ - \$\$\$</p>	<p>■■■■■ 2 / 5 · KELTEC + SPC AFTERMARKET</p>

Reading the brand bench column — the bar shows how many of SPC's tier slots (Industry Leader · Emerging · Economical · adjacent) carry an option at that product type. A deep bench means a price-driven and a spec-driven option both close cleanly; a narrow bench means the available brands map closely to the technical requirements and the comparison stops being a tier choice.